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## REMARKS

### STATUS SUMMARY

Claims 1-10 and 12-20 are pending in the present application. The Examiner has objected to claim 1 because of an informality. The Examiner has rejected claims 1, 2, and 3 under the judicially created doctrine of obviousness-type double patenting as to U.S. Patent No. 6,680,695. The Examiner has also rejected claims 1, 3, and 5-8 under 35 U.S.C § 103(a) as being unpatentable over U.S. Patent No. 5,402,441 to *Washizu et al.* ("*Washizu*"), claim 2 under 35 U.S.C § 103(a) as being unpatentable over *Washizu* in view of U.S. Patent No. 5,504,684 to *Lau et al.* ("*Lau*"), claims 4, 10-12, and 14 under 35 U.S.C § 103(a) as being unpatentable over *Washizu* in view of U.S. Patent No. 6,332,086 to *Avis* ("*Avis*"), and claims 15-20 under 35 U.S.C. § 103(a) as being unpatentable over *Washizu* and *Avis* further in view of U.S. Patent No. 6,901,260 to *Xin* ("*Xin*").

These formal matters identified in the Office Action are addressed herein below.

### AMENDMENTS TO SPECIFICATION

Amendments have been made to the lines 12-24 on page 1 of the specification, and also the first paragraph on page 9, the first and third paragraphs on page 11, and the last paragraph on page 12 of the specification. The amendments on page 1 of the specification update the reference to earlier-filed applications and the remaining amendments have been made to correct references to numbers in the drawings and to improve grammar and clarity in the specification. No new matter has been added by these amendments.

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AMENDMENTS TO CLAIMS 1, 7, 8, 10, 14, AND 19

Minor amendments have been made to claims 1, 7, 8, 10, 14, and 19. Claim 1 was amended in response to the Examiner's objection to claim 1 and the amendment requested by the Examiner was made. The remaining amendments were made to improve grammar, clarity, or claim form. Specifically, claims 7, 8, 10, 14, and 19 were amended by changing the term "comprising" to "consisting of" with reference to groups, and another change was a correction of a minor grammatical error. None of these amendments to the claims referred to in this section have been made in response to a substantive rejection or for any other purpose relating to patentability. The amendments made to the claims are believed to be fully supported by the present application as originally filed. Accordingly, no new matter has been added by these amendments.

CLAIM REJECTIONS – DOUBLE PATENTING

Claims 1, 2, and 3 are rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, and 3, respectively, of U.S. Patent No. 6,680,695 entitled "COMMUNICATIONS SYSTEM THAT REDUCES AUTO-CORRELATION OR CROSS-CORRELATION IN WEAK SIGNALS," by *Gregory B. Turetzky, et al.* ("Turetzky"), issued January 20, 2004.

In response, Applicants file herewith a Terminal Disclaimer in accordance with 37 C.F.R. 1.321(c). In view of the Terminal Disclaimer, Applicants respectfully submit that the rejection of claims 1, 2 and 3 based on double patenting is now overcome, and requests that this rejection be withdrawn.

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CLAIM REJECTIONS - 35 U.S.C. § 103(a)

Claims 1-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Washizu*.

Claim 1 is directed to:

A method for reducing auto-correlation and cross-correlation in a CDMA receiver, comprising:  
correlating an incoming CDMA signal, located within a scanned signal window, with a locally generated signal on a first data path;  
verifying the incoming CDMA signal, located within the scanned signal window, against a lock signal on a second data path;  
determining, using the second data path, whether the incoming CDMA signal has at least one characteristic that differentiates the incoming CDMA signal from an auto-correlated or cross-correlated signal; and  
continuing to search the scanned signal window for a second incoming CDMA signal if the incoming CDMA signal lacks the at least one characteristic.

In general, *Washizu* fails to teach or disclose parallel data paths, *i.e.*, the first data path and the second data path, that allow standard correlation of signals in parallel with verification of a lock signal to determine whether an incoming CDMA signal has at least one characteristic that differentiates it from an auto-correlated or cross-correlated signal, *i.e.*, whether the system has locked onto the proper signal, within the scanned signal window. (page 5, lines 8-10.) *Washizu* also fails to teach continuing to search the scanned signal window for a second incoming CDMA signal if the incoming CDMA signal lacks the at least one characteristic.

In *Washizu*, a received GPS signal is amplified, converted into an intermediate-frequency ("IF") signal, and then correlated with a PN code generated by PN code generator. (Col. 4, lines 28-41.) *Washizu* further teaches, in FIG. 3, a switch 6 that selectively supplies an output signal from the PN code correlator 5 to either a signal search unit 7, a signal determining unit 8, or a signal tracking unit 9. (Col. 4, lines 42-45.) It is the Examiner's contention that the signal search unit 7 corresponds to the claimed first data path and the signal determining unit 8 to the second data path.

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When the power supply to the GPS signal receiver of *Washizu* is switched on, the switch 6 is shifted over to the signal search unit 7, which produces an output signal that enables the control circuit 11 to control the PN phase control unit 10 to successively vary the phase of the PN code generated by the PN code generator 4 until the correlated output signal exceeds a predetermined value. (Col. 5, lines 17-30.) The control circuit 11 then shifts the switch 6 over to the signal determining unit 8, and stores the correlated output signal in excess of the predetermined value into the first storage area of the RAM 81 of the signal determining unit 8. The control circuit 11 then shifts the switch 6 over to the signal search unit 7 again, and controls the PN code phase control unit 10 to control the PN code generator 4 to shift the phase of the PN code generated by the PN code generator 4 over a certain phase range into a previous phase. Then, when a second correlated output signal in excess of the predetermined value is found, this signal is stored in the second storage area of the RAM 81. (Col. 5, lines 31-47.)

A comparator 82 in the signal determining unit 8 is used to compare the correlated output signals stored in RAM 82, with the signal having the higher correlated signal peak determined as being produced by a direct wave. (Col. 6, lines 6-25.) Switch 6 is then switched over to the signal tracking unit 9 by an output signal from the control circuit 11. (Col. 6, lines 61-64.)

First, *Washizu* does not teach, disclose, suggest or provide motivation for a first data path and a second data path as claimed in claim 1. Contrary to the Examiner's contention as to claim 1, the paths to the signal search unit 7 and the signal determining unit 8 do not correspond to the first and second data paths of claim 1. Because of the switch 6, FIG. 3, none of the data paths of *Washizu* operate in parallel, as is disclosed in the claimed invention. The first and second data paths disclosed in claim 1 each have their own path to their own CPU or other type of processor or may share the same CPU for processing. (Page 9, lines 1-6.) For this reason, the method of claim 1 does not require switching between various data paths.

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Second, claim 1, in the second data path, determines “whether the incoming GPS signal has at least one characteristic that differentiates the incoming GPS signal from an auto-correlated signal or a cross-related signal, wherein the locally generated signal can change in order to continue to search the scanned signal window for a second incoming GPS signal if the incoming GPS signal lacks the at least one characteristic.” (Emphasis added.) In contrast, the GPS signal receiver of *Washizu* uses only a PN code generated by a PN code generator that is phase controlled to search for a correlated output signal in excess of a predetermined value.

Therefore, *Washizu* fails to teach or describe all of Applicants’ claim limitations in independent claim 1. Thus independent claim 1 is in condition for allowance. Claims 2-9 depend directly or indirectly from allowable claim 1, and therefore are distinguishable over *Washizu* for at least the same reasons.

Independent claim 10 is also rejected under 35 U.S.C. § 103(a) as being unpatentable over *Washizu* in view of *Avis*. Claim 10 is directed to a method having the same features that distinguish claim 1 from *Washizu*. Claim 10 therefore is also allowable for the same reasons. Claims 11, 12, and 14-20 depend or ultimately depend from claim 10, and therefore are distinguishable over the cited references at least for the same reasons.

In view of the foregoing, Applicants respectfully submit that claims 1-8, 10-12, and 14-20 are patentable under 35 U.S.C. § 103(a) over *Washizu*, and respectfully request that the rejection of these claims under 35 U.S.C. § 103(a) be withdrawn.

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**RESPONSE TO CLAIM OBJECTED TO  
AS BEING DEPENDENT UPON A REJECTED BASE CLAIM**

The Examiner has objected to claim 9 as being dependent upon a rejected base claim, but has stated that claim 9 would be allowable if re-written in independent form including all of the limitations of the base claim and any intervening claims.

In response, Applicants thank the Examiner for allowing claim 9 if re-written; however, Applicants believe that re-writing this claim in independent form is not needed at this time because, as stated above, *Washizu* fails to teach or describe all of Applicants' claim limitations in independent claim 1. Thus, independent claim 1 is in condition for allowance, and dependent claim 9 that depends indirectly from allowable independent claim 1 is also in condition for allowance.

Therefore, Applicants respectfully request that the Examiner withdraw the objection to claim 9 because this claim is in condition for allowance.

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**CONCLUSION**

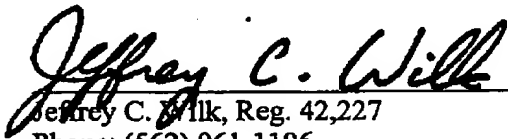
In light of the above amendments and remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

Respectfully submitted,  
Turetzky et al.

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